

REMARKS

Reconsideration and the timely allowance of the pending claims, in view of the following remarks, are respectfully requested.

In the Office Action dated May 15, 2007, the Examiner objected to the Drawings, as allegedly missing a claimed feature; rejected claims 4 and 16, under 35 U.S.C. §112, ¶2, as allegedly being indefinite; rejected claims 14-17, under 35 U.S.C. §102(b), as allegedly being anticipated by Lin '365 (U.S. Patent No. 5,932,365); rejected claims 1-7, under U.S.C. §103(a), as allegedly being unpatentable over Franklin '846 (U.S. Patent Pub. No. 2003-0198846) in view of Sugihara '972 (JP 11-120972); rejected claim 8, under U.S.C. §103(a), as allegedly being unpatentable over Franklin '846 in view of Sugihara '972 and Fuji '500 (U.S. Patent No. 6,080,500); rejected claims 9-10 and 12-13, under U.S.C. §103(a), as allegedly being unpatentable over Franklin '846 in view of Hamada '762 (U.S. Patent No. 5,314,762); rejected claim 11, under U.S.C. §103(a), as allegedly being unpatentable over Franklin '846 in view of Hamada '762 and Fuji '500; rejected claim 18, under U.S.C. §103(a), as allegedly being unpatentable over Lin '365 in view of Sugihara '972; rejected claim 19, under U.S.C. §103(a), as allegedly being unpatentable over Lin '365 in view of Franklin '846.

By this Amendment, claim 5 has been amended to provide a clearer presentation of the claimed subject matter and claims 1-4, 6 and 9-19 have been cancelled without prejudice or disclaimer. Applicants submit that no new matter has been introduced.

Applicants further submit that the cancellation of claims, render the Drawing objections and indefiniteness rejections moot. Accordingly, the immediate withdrawal of the these objections and rejections respectfully requested.

In so far as the rejections under 35 U.S.C. §102(b) and §103(a) are still deemed relevant in view of the claim changes, Applicants respectfully traverse these rejections for the following reasons:

I. Rejections Under §102(b) & §103(a).

As indicated above, amended claim 5 is directed to a fuel cell unit and now positively recites, *inter alia*, that the *casing has a base and a wall surface provided with breathers, and*

a plurality of convex members protruding outward from the wall surface and located near the breathers.

These features are amply supported by the various embodiments disclosed in the written description. By way of example only, the disclosed embodiments provide a fuel cell unit 40 with a casing 42, in which a plurality of slits 44, for use as breathers, are formed in a top wall 42b and a rear wall 42c of the casing 42. A plurality of protrusions 88a protrude from those parts of the top wall 42b near the slits 44. The two protrusions 88a are different in height and are located dispersedly in positions such that they cannot support the casing 42, e.g., positions that prohibit three-point support. A plurality of protrusions 88b of different heights protrude from those parts of the rear wall 42c near the slits 44 and are also located dispersedly in positions such that they cannot support the casing 42. Further, four protrusions protrude from a bottom wall 42a of the casing 42, thereby forming leg portions, and a plurality of slits for use as breathers are formed in the bottom wall 42a. (See, Original Specification: page 25, line 20 – page 26, line 13; FIGs. 18, 19).

As such, the fuel cell unit is constructed with convex members that are arranged on the wall surface of the casing and located near the breathers, so that if the wall surface of the casing touches a wall or an object is placed on the wall surface, the convex members prevent the breathers from being stopped up, thereby maintaining smooth intake and exhaust through the slits. In this manner, the fuel cell unit can be protected against lowering of output and overheating, so that power can be supplied steadily under various working conditions. Further, the convex members prevent the fuel cell unit from being set upright or upside down, thereby preventing leakage of the fuel. (See, Original Specification: page 26, line 13 - page 30, line 21).

In contrast to the Examiner's assertions, none of the asserted references, whether taken alone or in reasonable combination, teach each and every element of claim 5, including the features identified above. In particular, Lin '365 discloses a base 2 for mounting the fuel cells 10 that has at least one hydrogen distribution channel 21 and at least one hydrogen inlet 22 at one end of the hydrogen distribution channel 21 for distributing hydrogen evenly to the fuel cells 10. An air supply 51 such as a fan located at a front end of the fuel cells 10 is provided for sending air into the fuel cells 10. The hydrogen canister 3 is provided for supplying hydrogen via the hydrogen distribution channel 21 of the base 2 to the fuel cells 10

so that the hydrogen may undergo electrochemical reactions with oxygen in the air. (*See, Lin '365: col. 3, lines 37-47*). There is, however, no mention or suggestion, whatsoever, of a *casing having a base and a wall surface provided with breathers, and a plurality of convex members protruding outward from the wall surface and located near the breathers*, as required by claim 5.

None of the remaining references are capable of curing the deficiencies of Lin '365 identified above, much less teach the entire combination of claim elements in their own right. For example, Franklin '846 discloses an integrated fuel cell power system **10**, comprised of a fuel cell stack **20**, an integrated, multi-function mounting plate **30**, fuel supply unit(s) **40, 42**, a distribution manifold **50**, a gas pressure regulator **60**, and a cover **70**. (*See, Franklin '846: par. [0011]*). The fuel cell system includes a cover **70** that has slots **72** or louvers to facilitate proper air circulation. (*See, Franklin '846: par. [0021]*). There is, however, nothing, in Franklin '846 that remotely teaches *a plurality of convex members protruding outward from the wall surface and located near the breathers*, as required by claim 5.

Along these lines, Sugihara '972 merely teaches a removable extension battery pack **12** with a holder section **22** for portability. (*See, Sugihara '972: Abstract*). Hamada '762 merely discloses a portable power source with a case **1** that encloses a fuel cell **3**, a hydrogen storage unit **4** for supplying hydrogen to the fuel cell **3**, and air inlets **12** to enable air to flow directly into the fuel cell **3**. (*See, Hamada '762: col. 2, line 57 – col. 3, line 30*). And, Fuju '500 merely discloses a movable fuel cell apparatus **10** with a movable housing **12** having exhaust holes **27** provided on a door **19**, and exhaust slots **28** provided on the side face **21** of the housing **12** to exhaust such as the air in the rear portion **12b** of the housing **12**. (*See, Fuju '500: col. 3, line 54 – col. 4, line 15*). As such, none of these references teach or suggest *a plurality of convex members protruding outward from the wall surface and located near the breathers*, as required by claim 5.

For at least these reasons, Applicants submit that none of the asserted references, whether taken alone or in reasonable combination, teach each and every element of claim 5. As such, claim 5 is clearly patentable. In addition, because claims 7-8 depend from claim 5, claims 7-8 are patentable at least by virtue of dependency as well as for their additional recitations. Accordingly, the immediate withdrawal of the rejections of claims 5 and 7-8 is respectfully requested.

II. Conclusion.

All matters having been addressed and in view of the foregoing, Applicants respectfully request the entry of this Amendment, the Examiner's reconsideration of this application, and the immediate allowance of all pending claims.

Applicant's Counsel remains ready to assist the Examiner in any way to facilitate and expedite the prosecution of this matter. If any point remains in issue in which the Examiner feels may be best resolved through a personal or telephone interview, please contact the Undersigned at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number **03-3975**. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

PILLSBURY WINTHROP
SHAW PITTMAN LLP



E. R. HERNANDEZ
Reg. No. 47641
Tel. No. 703.770.7788
Fax No. 70.770.7901

Date: August 1, 2007
P.O. Box 10500
McLean, VA 22102
(703) 770-7900